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Preliminary Amendment Accompanying
Substitute Specification
Redline Substitute Specification

10/500397

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Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

What is claimed is:

1. (Currently Amended) A method for storing values of a range block and of seven isometries used in a fractal image compression method, ~~consisting of~~ comprising using four memory areas (M1, M2, M3, M4) of identical sizes in which are respectively stored ~~the~~ an identity, and three first isometries corresponding to the isometries of symmetry with respect to ~~the~~ a vertical axis, of 270° rotation, and of 90° rotation.

2. (Currently Amended) The method ~~for reading from memory areas filled by applying the method of claim 1,~~ further comprising reading from the memory areas wherein each memory area is addressed in a first direction for ~~the~~ a reading of the stored values to obtain the identity and the first three isometries, and in ~~the~~ a reverse direction for ~~the~~ a reading of the four other isometries of symmetry with respect to ~~the~~ a horizontal axis, of 180° rotation, of symmetry with respect to a first diagonal, and of symmetry with respect to ~~the~~ a second diagonal.

3. (Currently Amended) A fractal image compression method using a range block and seven isometries of this block, ~~including the steps of the method~~ comprising:

—memorizing ~~the~~ respective values of the pixels of the range block and of only three of its isometries; and

—addressing ~~the~~ corresponding memory areas in read mode in one direction or in ~~the~~ a reverse direction according to ~~the~~ a desired isometry.

4. (Currently Amended) The method of claim 3; wherein two isometries of the range block are stored in a same memory area.

5. (Currently Amended) A circuit for addressing a memory of storage of an image data range block intended to be used in a fractal image compression method, the circuit including means for addressing each of four areas (~~M1, M2, M3, M4~~) of said memory in a first direction and in ~~the~~ a reverse direction.

6. (New) A method, comprising:
obtaining a reference block of pixels from an image;
performing transformation on the reference block to obtain a plurality of isometries corresponding to isometries of symmetry with respect to at least one axis and with respect to at least one rotation of the reference block; and
storing values representative of the reference block and values representative of the isometries.

7. (New) The method of claim 6 wherein storing the values representative of the reference block and of the isometries includes storing these values in memory areas of identical sizes.

8. (New) The method of claim 6 wherein performing transformation on the reference block to obtain the plurality of isometries includes obtaining the isometries of symmetry with respect to a vertical axis, a 270° rotation, and a 90° rotation.

9. (New) The method of claim 8 wherein performing transformation on the reference block to obtain the plurality of isometries further includes obtaining the isometries of symmetry with respect to a horizontal axis, a 180° rotation, a first diagonal, and a second diagonal.

10. (New) The method of claim 9, further comprising:
reading a memory area, in a first direction, having stored therein the values representative of the reference block and values representative of the isometries of symmetry with respect to the vertical axis, the 270° rotation, and the 90° rotation; and
reading the memory area, in a second direction different from the first direction, having stored therein the values representative of the isometries of symmetry with respect to the horizontal axis, the 180° rotation, the first diagonal, and the second diagonal.

11. (New) The method of claim 10 wherein reading the memory area in the second direction includes reading the memory area in a reverse direction relative to the first direction.

12. (New) The method of claim 1 wherein storing values representative of the isometries includes storing at least two of the isometries in a same memory area.

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13. (New) The method of claim 1, further comprising reading particular ones of the memory area, having values stored therein, in a forward direction or in a reverse direction according to an isometry that is to be compared with a domain block of pixels of the image.